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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,245	07/03/2002	Alfred Antson	9052-111	9401
20792	7590	01/29/2004	EXAMINER	
MYERS BIGEL SIBLEY & SAJOVEC PO BOX 37428 RALEIGH, NC 27627			LY, CHEYNE D	
			ART UNIT	PAPER NUMBER
			1631	

DATE MAILED: 01/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/088,245	<b>Applicant(s)</b> ANTSON ET AL.	
	<b>Examiner</b> Cheyne D Ly	<b>Art Unit</b> 1631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-41 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All   b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                            | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____   |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)        | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ | 6) <input type="checkbox"/> Other: ____                                     |

## **DETAILED ACTION**

### **Election/Restrictions**

1. Restriction is required under 35 U.S.C. 121 and 372.
2. This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.
3. In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-9, 27, and 28, drawn to a crystal of molecular complex of E2NT, classified in class 702, subclass 27.

Group II, claim(s) 10, 11, 24-26, and 29-31, and 41, drawn to a method, computer, and machine readable data storage for the crystallized molecular complex of E2NT, classified in class 702, subclass 27.

Group III, claim(s) 12-14 and 19-23, drawn to a method for identifying and/or selecting a candidate therapeutic agent, classified in class 702, subclass 27.

Group IV, claim(s) 15 and 16, drawn to a method of treating an HPV infection in a subject, classified in class 514, subclass 2.

Group V, claim(s) 17, drawn to a method of monitoring the efficacy of an antiviral therapy in a patient receiving a medicament for the treatment of an HPV infection, classified in class 514, subclass 2.

Group VI, claim(s) 18, drawn to the use of a dimerisation surface of a crystallized molecular complex of an E2NT protein for measuring efficacy of agents, classified in classes 435 and 702, subclasses 4 and 27.

Group VII, claim(s) 32, drawn to a method for evaluating the ability of a chemical entity to associate with a molecule or molecular complex, classified in classes 435 and 702, subclasses 7.1 and 27, respectively.

Group VIII, claim(s) 33, drawn to a drug or therapeutic agent identified, assessed or selected using a crystallized molecular complex of an E2NT protein or its crystal structure, classified in classes 514 and 702, subclasses 1 and 27, respectively.

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Group IV, claim(s) 34-38, drawn to a method for designing a potential antiviral compound for the prevention or treatment of an HPV infection, classified in classes 514 and 702, subclasses 2 and 27, respectively.

Group X, claim(s) 39 and 40, drawn to a method for designing a candidate compound for screening for binding to or inhibition of an HPV infection, classified in classes 514 and 702, subclasses 2 and 27, respectively.

4. Inventions in Groups I-X are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant application, the crystal of the molecular complex E2NT of Group I may be utilized in the distinct usages as needed in Group II, a method, computer, and machine readable data storage for crystallized molecular complex of E2NT. The product of Group I may be utilized in a method for identifying and/or selecting a candidate therapeutic agent as in Group III. The product of Group I may be utilized in a method for treating an HPV infection in a subject as in Group IV. The product of Group I may be utilized in a method of monitoring the efficacy of an antiviral therapy in a patient receiving a medicament for the treatment of an HPV infection as in Group V. The product of Group I may be utilized in the use of a dimerisation surface of a crystallized molecular complex of an E2NT protein for measuring efficacy of agents as in Group VI. The product of Group I may be utilized in a method for evaluating the ability of a chemical entity to associate with a molecule or molecular complex as in Group VII. The product of Group I may be utilized as a drug or therapeutic agent identified, assessed or selected using a crystallized molecular complex of an E2NT protein or its crystal structure as in Group VIII. The product of Group I may be utilized in a method for designing a potential antiviral

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compound for the prevention or treatment of an HPV infection as in Group IX. The product of Group I may be utilized in a method for designing a candidate compound for screening for binding to or inhibition of an HPV infection as in Group X, alternatively, the product of Group I may be utilized in a method of combinatorial library screening. All of these usages are distinct as requiring distinct and different functions and results thereof without overlapping search due to different subject matter. This lack of overlapping searches documents the undue search burden if they were search together.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

6. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

8. Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the PTO Fax Center located

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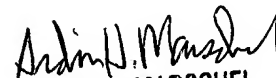
in Crystal Mall 1. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993) (see 37 CFR § 1.6(d)). The CM1 Fax Center number is (703) 872-9306.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Dune Ly, whose telephone number is (571) 272-0716. The examiner can normally be reached on Monday-Friday from 8 A.M. to 4 P.M.

10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, Ph.D., can be reached on (571) 272-0722.

11. Any inquiry of a general nature or relating to the status of this application should be directed to Legal Instruments Examiner, Tina Plunkett, whose telephone number is (571) 272-0549 or to the Technical Center receptionist whose telephone number is (703) 308-0196.

C. Dune Ly  
1/21/04

  
ARDIN H. MARSCHEL  
PRIMARY EXAMINER